

What is claimed is;

1. A method for controlling coming and going personnel at a facility comprising the steps of:

5       ionizing air by a discharging device, the air has been contacted with a coming person who entered into a control area provided between outside and inside of the facility;

10     detecting the ionized air by a mass spectrometer as a molecular weight;

      inputting the molecular weight into a control processor;

      15    checking the molecular weight against molecular weights of dangerous substance which have been registered previously into said control processor to detect the molecular weight of dangerous substance in the air;

      inputting a signal of the detected dangerous substance into a door driving controller, and

20      closing a door provided in the control area by operating said door driving controller to prohibit said coming person from entering the facility.

2. A system for controlling coming and going personnel at a facility comprising:

25      a control area provided between outside and inside of the facility;

      doors provided in said control area;

      a door driving controller for controlling operation

of said doors; and

a mass spectrometer provided in said control area for ionizing air by a discharging device, the air has been contacted with a coming person who entered into said 5 control area, and detecting the ionized air as a molecular weight; wherein

said molecular weight is input into a control processor to check against molecular weights of dangerous substance, which have been registered previously into 10 said control processor, in order to detect the molecular weight of dangerous substance in the air;

a signal of the detected dangerous substance in the air is input into a door driving controller; and

the door provided in a direction forward of the 15 coming person is closed by operating said door driving controller.

3. A system for controlling coming and going personnel at a facility comprising:

20 a control area provided between outside and inside of the facility;

doors provided in said control area;

a door driving controller for controlling operation of said doors;

25 a person identification detector provided in said control area for identifying a personal identification means of a coming person; and

a mass spectrometer provided in said control area

for ionizing air by a discharging device, the air has been contacted with a coming person who entered into said control area, and detecting the ionized air as a molecular weight; wherein

5       said detected personal identification and said detected molecular weight are input into a control processor to check against personal identification and molecular weights of dangerous substance, both of which have been registered previously into said control  
10      processor, in order to detect the molecular weight of dangerous substance in the air and the personal identification matching with the previously registered personal identification;

15      a danger signal of the detected dangerous substance in the air and an identification signal of the detected personal identification matching with the previously registered personal identification are input into said door driving controller, respectively;

20      said danger signal is input into said door driving controller prior to said identification signal, of which transmission is delayed by a delay element provided in said identification signal side, and

25      the door provided in a direction forward of the coming person is closed by operating said door driving controller.

4. A system for controlling coming and going personnel at a facility comprising:

a control area provided between outside and inside of the facility;

doors provided in said control area;

5 a door driving controller for controlling operation of said doors;

a palm shape detector provided in said control area for detecting a palm shape of a coming person; and

10 a mass spectrometer provided in said control area for ionizing air by a discharging device, the air has been contacted with said palm shape, and detecting the ionized air as a molecular weight; wherein

said palm shape and said detected molecular weight are input into a control processor to check against palm shapes and molecular weights of dangerous substance, both 15 of which have been registered previously into said control processor, in order to detect the molecular weight of dangerous substance in the air and the palm shape matching with the previously registered palm shapes;

a danger signal of the detected dangerous substance 20 in the air and a palm shape signal of the detected palm shape matching with the previously registered palm shapes are input into said door driving controller, respectively;

25 said danger signal is input into said door driving controller prior to said palm shape signal, of which transmission is delayed by a delay element provided in said palm shape signal side, and

the door provided in a direction forward of the

coming person is closed by operating said door driving controller.